

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) SAN ONOFRE NUCLEAR GENERATING STATION, UNIT 2	DOCKET NUMBER (2) 0 5 0 0 0 3 6 1	PAGE (3) 1 OF 0 2
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TITLE (4)
SAFETY INJECTION TANKS NO. 7 AND NO. 10 PRESSURE LIMIT EXCEEDED

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)																																																										
MONTH	DAY	YEAR	YEAR	SEQ. NUMBER	REV. NUMBER	MONTH	DAY	YEAR	FACILITY NAMES		DOCKET NUMBER(S)																																																								
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<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">OPERATING MODE (9) 1</td> <td colspan="11">THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)</td> </tr> <tr> <td rowspan="5">POWER LEVEL (10) 1 0 0</td> <td>20.402(b)</td> <td></td> <td>20.405(c)</td> <td></td> <td>50.73(a)(2)(iv)</td> <td></td> <td>73.71(b)</td> </tr> <tr> <td>20.405(a)(1)(i)</td> <td></td> <td>50.36(c)(1)</td> <td></td> <td>50.73(a)(2)(v)</td> <td></td> <td>73.71(c)</td> </tr> <tr> <td>20.405(a)(1)(ii)</td> <td>X</td> <td>50.36(c)(2)</td> <td>X</td> <td>50.73(a)(2)(vii)</td> <td></td> <td>OTHER (Specify in Abstract below and in Text, NRC Form 366A)</td> </tr> <tr> <td>20.405(a)(1)(iii)</td> <td>X</td> <td>50.73(a)(2)(i)</td> <td></td> <td>50.73(a)(2)(viii)(A)</td> <td></td> <td></td> </tr> <tr> <td>20.405(a)(1)(iv)</td> <td></td> <td>50.73(a)(2)(ii)</td> <td></td> <td>50.73(a)(2)(viii)(B)</td> <td></td> <td></td> </tr> <tr> <td></td> <td>20.405(a)(1)(v)</td> <td></td> <td>50.73(a)(2)(iii)</td> <td></td> <td>50.73(a)(2)(x)</td> <td></td> <td></td> </tr> </table>												OPERATING MODE (9) 1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)											POWER LEVEL (10) 1 0 0	20.402(b)		20.405(c)		50.73(a)(2)(iv)		73.71(b)	20.405(a)(1)(i)		50.36(c)(1)		50.73(a)(2)(v)		73.71(c)	20.405(a)(1)(ii)	X	50.36(c)(2)	X	50.73(a)(2)(vii)		OTHER (Specify in Abstract below and in Text, NRC Form 366A)	20.405(a)(1)(iii)	X	50.73(a)(2)(i)		50.73(a)(2)(viii)(A)			20.405(a)(1)(iv)		50.73(a)(2)(ii)		50.73(a)(2)(viii)(B)				20.405(a)(1)(v)		50.73(a)(2)(iii)		50.73(a)(2)(x)		
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LICENSEE CONTACT FOR THIS LER (12)

NAME H. E. MORGAN, STATION MANAGER	TELEPHONE NUMBER AREA CODE: 7 1 4 3 6 8 - 6 2 4 1
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC
B	BIP	IISV	I208	Y					

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15)

MONTH	DAY	YEAR

Abstract (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On January 28, 1986, at 2156 with Unit 2 at 100% power while filling Safety Injection Tank (SIT) No. 8, the nitrogen cover pressures of SIT No. 7 and SIT No. 10 increased to 630 psig contrary to Limiting Condition for Operation (LCO) 3.5.1.d, which specifies a maximum pressure of 625 psig. Since LCO 3.5.1 allows only one inoperable SIT, LCO 3.0.3 was entered. At 2202, SIT No. 7 nitrogen cover pressure was restored to within limits by venting, and LCO 3.0.3 was exited.

The increase in nitrogen pressure of SIT No. 7 and SIT No. 10 was caused by in-leakage of borated water through their individual fill/drain valves during the filling of SIT No. 8 with the common fill header pressurized. The design of the fill/drain valve actuator is inadequate to provide positive isolation under high differential pressure. In-leakage through SIT fill/drain valves had been reported previously (LER 83-146 and LER 84-051, Docket No. 50-361), and corrective action had been taken to improve the actuator design and to add a cautionary note to the SIT fill/drain procedure. The recurrence of inadvertent fill occurred because the cautionary note did not address how to minimize differential pressure upon fill/drain valve closure.

All SIT fill/drain valve actuators in Units 2 and 3 had been replaced except for the valve actuators to Unit 2 SIT Nos. 7 and 10. Until the remaining two valve actuators are replaced, the SIT procedure will be revised to include additional steps to be taken such that differential pressure across the fill/drain valves will be minimized.

There was no safety significance to this event, since SITs No. 7 and No. 10 remained capable of performing their safety function.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME(S)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQ. NUMBER	REV. NUMBER		
SAN ONOFRE NUCLEAR GENERATING STATION, UNIT 2	0 5 0 0 0 3 6 1	8 6	- 0 5	- 0 2	0 2	OF 0 2

TEXT (If more space is required, use additional NRC Form 366A's) (17)

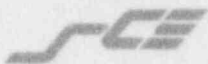
On January 28, 1986, at 2156 with Unit 2 at 100% power during the filling of Safety Injection Tank (SIT) (EIIS System Code BP) No. 8, the nitrogen cover pressures of SIT No. 7 and SIT No. 10 increased to 630 psig contrary to Limiting Condition for Operation (LCO) 3.5.1.d, which specifies a maximum pressure of 625 psig. Since LCO 3.5.1 allows only one inoperable SIT, LCO 3.0.3 was entered. At 2202, SIT No. 7 nitrogen cover pressure was restored to within limits by venting and LCO 3.0.3 was exited. Therefore, LCO 3.0.3 was invoked for only 6 minutes. At 2205, SIT No. 10 nitrogen cover pressure was restored to within limits.

The increase in nitrogen pressure of SIT No. 7 and SIT No. 10 was due to an increase in SIT water level. This was caused by in-leakage of borated water through their individual fill and drain valves (EIIS Component Code ISV) during the filling of SIT No. 8 with the common fill header pressurized by High Pressure Safety Injection (HPSI) pump discharge (Approx. 1500 psig).

In-leakage through the SIT fill/drain valve during SIT filling operations had been reported previously (LER 83-146 and LER 84-051, Docket No. 50-361). Evaluation determined that the installed SIT fill/drain valve actuator design for both Units 2 and 3 was inadequate for system isolation at high differential pressures. Corrective action had been taken to improve the actuator design and to add a cautionary note to the SIT fill/drain procedure. The recurrence of inadvertent fill occurred because the cautionary note did not address how to prevent excessive differential pressure upon fill/drain valve closure.

All SIT fill/drain valve actuators in Units 2 and 3 had been replaced except for the valve actuators to Unit 2 SIT Nos. 7 and 10. These two remaining fill/drain valve actuators are planned to be replaced during the Unit 2 Cycle II refueling outage scheduled to begin in March 1986. Until replacement of the two remaining fill/drain valve actuators is completed, the SIT fill/drain procedure will be revised to include additional steps to be taken such that differential pressure across the fill/drain valves will be minimized.

LCO 3.5.1 requires that the nitrogen cover pressure on the SITs be maintained between 600 and 625 psig. The deviation of 5 psig between the maximum condition of 625 psig and the actual condition of 630 psig for the two SITs was insignificant and the time of the deviation lasted for only 9 minutes. Since the two SITs remained capable of performing their intended safety function, neither the health and safety of plant personnel nor the health and safety of the public was affected by this event.



Southern California Edison Company

SAN ONOFRE NUCLEAR GENERATING STATION

P. O. BOX 128

SAN CLEMENTE, CALIFORNIA 92672

H. E. MORGAN
STATION MANAGER

TELEPHONE
(714) 568-6241

February 27, 1986

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Subject: Docket No. 50-361
30-Day Report
Licensee Event Report No. 86-005
San Onofre Nuclear Generating Station, Unit 2

Pursuant to 10 CFR 50.36(c)(2), 50.73(a)(2)(i)(B), and 50.73(a)(2)(vii) this submittal provides the required 30-day written Licensee Event Report (LER) for an occurrence involving Limiting Condition for Operation 3.5.1. Neither the health and safety of plant personnel nor the health and safety of the public was affected by this event.

If you require any additional information, please so advise.

Sincerely,

Enclosure: LER No. 86-005

cc: F. R. Huey (USNRC Senior Resident Inspector, Units 1, 2 and 3)

J. B. Martin (Regional Administrator, USNRC Region V)

Institute of Nuclear Power Operations (INPO)

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